Short communication

Sensation seeking and negative affectivity as predictors of risky behaviors: A distinction between occasional versus frequent risk-taking

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Abstract

The tendency for occasional risk-taking was compared with the tendency for frequent risk-taking within a population of 201 young people. Positive affectivity, negative affectivity, sensation seeking, and risk-taking were measured for the domains of substance use, behavior on the road, sexual relations, and deviant behavior. The tendencies for occasional versus frequent risk-taking generalize across three of the four domains. Multivariate analysis show that demographics variables and personality traits do not predict the tendency for occasional risk-taking as well as they predict the tendency for frequent risk-taking. Furthermore, sensation seeking is the only trait linked to the tendency for occasional risk-taking in the domains of substance use and deviant behavior. The tendency for frequent risk-taking, notably in the domain of substance use, is predicted by age, sensation seeking, and negative affectivity. The other three domains are only predicted by sensation seeking. The results support the idea that the tendency for occasional risk-taking is distinct from the tendency for frequent risk-taking and that the two tendencies are not controlled by the same determinisms.

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Many studies consider the frequency of risk-taking to be a linear variable that varies from abstinence, a sign of good psychological adjustment, to frequent risk-taking, a sign of poor psychological adjustment. In contrast to this approach, the hypothesis in which occasional risk-taking and frequent risk-taking are not two levels of the same tendency and are not globally subject to the same determinisms is being invoked more and more frequently. Several studies have compared populations of occasional risk-takers and frequent risk-takers (e.g. Shedler & Block, 1990; Walsh, 1992; Wolff & Wolff, 2002). These studies have made an important contribution to the field by showing that occasional risk-takers are rarely different to abstainers and do not seem to suffer from poor psychological and social adjustment, unlike frequent risk-takers. Taken together, results are compatible with the hypothesis that occasional risk-taking is a stable tendency of an individual that will be manifested in varied domains of risk-taking, and that the psychological profile associated with an occasional risk-taker is very different to that of a frequent risk-taker. However, few studies have systematically explored this hypothesis in varied domains of risk-taking. Our article contributes to the literature by exploring the different relationships that two personality traits, sensation seeking and affectivity, have with the tendencies to occasional and frequent risk-taking in four domains of risk-taking.

1. Participants and procedures

201 high school students contacted at their school took part voluntarily and anonymously in the study (average age=16.8): 65 males (32%), 135 females (67%) and one participant who did not state his/her gender. Data were collected by means of a paper and pencil questionnaire in group sessions of around twenty participants.

2. Measures

2.1. Sensation seeking and affectivity

The French version of the sensation seeking scale-V (SSS-V, Zuckerman, 1994) was used to measure sensation seeking (Carton, Jouvent, & Widlöcher, 1992) As the SSS-V contains items that clearly allude to risk-taking behaviors, we removed 5 items that consider the same behaviors as those evaluated in our risk-taking scale (Arnett, 1996). A score from 1 (low level of sensation seeking) to 35 (high level of sensation seeking) was calculated by counting the number of responses expressing sensation seeking.

Affectivity was measured using the Positive Affect Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). Positive affectivity score and negative affectivity score varied from 10 (low level of positive or negative affectivity) to 50 (high level of positive or negative affectivity).
2.2. Risk-taking

The tendency to take risks was measured using a questionnaire based on the Reckless Behavior Questionnaire (Arnett, 1996). The participants had to evaluate the frequency with which they engaged in 14 reckless behaviors, using a 5-point scale. The items were put into four categories: substance use (n=4), high-risk sexual behavior (n=2), reckless behavior on the road (n=4), and deviant behavior (n=4). In order to measure scores for occasional and for frequent risk-taking, the responses to each item were recoded using the following three categories: behavior not adopted, behavior occasionally adopted, behavior frequently adopted. For a given behavior, the “behavior not adopted” category corresponded to the response “zero times” on the scale, the “behavior occasionally adopted” category corresponded to a response lower than the median, and the “behavior frequently adopted” category corresponded to a response higher than the median. The median was calculated from the responses given by all the participants, except for those who gave the response “zero times”. For each category of item, a score for the tendency for occasional risk-taking was calculated by counting the number of times the participant’s responses were coded “behavior occasionally adopted” for the corresponding items. For a given domain, a high score indicated a strong tendency to engage in behaviors in this category, not forgetting that, in this case, the participant engages in these behaviors in an occasional way. In a similar way, a score for frequent risk-taking was calculated by counting the number of times the participant’s responses were coded “behavior frequently adopted”. For a given domain, a high score indicates a tendency to engage in behaviors in this category, but in this case the participant engages in these behaviors frequently.

3. Results

When considering personality traits, the participants’ average scores were 20.2 for sensation seeking (S.D.=5.3, \( \alpha = .76 \)), 24 for negative affectivity (S.D.=7, \( \alpha = .82 \)), and 26.4 for positive affectivity (S.D.=4.7, \( \alpha = .58 \)). The correlations show there is no link between negative affectivity and positive affectivity. However, positive affectivity is negatively linked to sensation seeking (\( r = -.17, p < .05 \)). With three exceptions, significant correlations are seen between the six pairs of occasional risk-taking scores (\( .16 < r < .30, p < .05 \)), and between the six pairs of frequent risk-taking scores (\( .22 < r < .48, p < .05 \)). The exceptions concern the score for occasional deviant behavior, which does not co-vary with either occasional substance use or with occasional sexual risk-taking, and the score for frequent substance use, which does not correlate with frequent sexual risk-taking. The scores for occasional substance use, sexual risk-taking and road risk-taking do not correlate with the scores for frequent substance use, sexual risk-taking, and road risk-taking. However, frequent deviant behavior correlates with all the occasional risk-taking scores, except with occasional deviant behavior (\( .16 < r < .27, p < .05 \)), and occasional deviant behavior correlates with two of the four frequent risk-taking scores (substance use \( [ r = .15, p < .05 ] \) and reckless behavior on the road \( [ r = .17, p < .05 ] \)).
Using multivariate analyses, we tested a model for predicting scores for occasional and frequent risk-taking. In a first analysis, the four scores for occasional risk-taking were declared dependent variables, whereas age, sex, positive affectivity, negative affectivity, and sensation seeking were entered as factors. According to Wilks’s lambda criterion, only sensation seeking contributes significantly to the multivariate effect, $F(4, 155) = 6.4; p < .001$. Sensation seeking was a significant predictor of substance use ($F[1, 158] = 14; p < .001$, total variance explained: 7.1%) and deviance ($F[1, 158] = 7.1; p < .001$; total variance explained: 10%). The significant relationships that were seen showed that a rise in the score for sensation seeking was associated with a rise in the scores for occasional risk-taking.

The same analysis was carried out a second time, this time with the scores for frequent risk-taking declared as dependent variables. The results show the multivariate effect was attributable to age, $F(4, 155) = 4.4; p < .01$, negative affectivity, $F(4, 155) = 3.5; p < .01$, and sensation seeking, $F(4, 155) = 10; p < .001$. The model significantly predicted substance use ($F[1, 158] = 10.7; p < .001$; total variance explained: 25%), reckless behavior on the road ($F[1, 158] = 7.3; p < .001$; total variance explained: 19%), and deviant behavior ($F[1, 158] = 3.3; p < .01$; total variance explained: 9.5%). Frequent substance use was positively linked to age ($p < .001$), negative affectivity ($p < .001$), and sensation seeking ($p < .001$). Reckless behavior on the road was positively linked to age ($p < .05$) and sensation seeking ($p < .001$). Lastly, deviant behavior was only positively linked to sensation seeking ($p < .001$) and, in a marginal way, to negative affectivity ($p < .07$).

4. Discussion

Overall, our results support the idea that there is a distinction between the tendency for occasional risk-taking and the tendency for frequent risk-taking. At least in the domains of substance use, reckless behavior on the road and high-risk sexual behavior, the scores for occasional risk-taking and frequent risk-taking seem to measure two different latent constructs. For risk-taking scores in the domain of deviant behavior, the conclusions are more reserved because these score co-varies with most of the occasional and frequent risk-taking scores.

Multivariate analyses have shown that the patterns of predictors for scores for occasional and frequent risk-taking are different. On the whole, affectivity and sensation seeking explain the variance of the tendency to take risks occasionally less well than they explain the variance of the tendency to take risks frequently. For occasional risk-taking, only sensation seeking contributes significantly to the model. On the other hand, frequent risk-taking is predicted by age, sensation seeking, and negative affectivity. These results confirm the idea that occasional risk-taking is not associated with a lack of affective adjustment. This is particularly true for the tendency for occasional substance use, which does not correlate with negative affectivity. On the other hand, negative affectivity is significantly linked to the tendency for frequent substance use. The same scenario is observed for risk-taking in the domain of deviant behavior, but the marginal significance of the relationship means that this last conclusion can only be made reservedly.
One final point concerns the fact that the tendency for occasional risk-taking is only weakly predicted by sensation seeking, and not at all by the other measures. This suggests that complementary major determinisms may be at work. It is plausible that self-regulation processes, such as self-control, may be involved. As Resnicow, Smith, Harrison, and Drucker (1999) suggest, some young people may moderate the frequency with which they engage in risky behaviors in order to minimize the objective dangers being run. Situational factors are also undoubtedly involved. Strong parental control or a lack of opportunity can help prevent young people from engaging in frequent risky behaviors, whilst still allowing them to do so on an occasional basis (Peretti-Watel & Lorente, 2004). This should particularly stimulate our need to understand the mechanisms associated with occasional risk-taking.

References


